UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,624	07/19/2001	Sheng Li	03442P012	9984

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EXAMINER
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ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 June 2005</u>.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 17-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,9-15 and 17-22* is/are rejected.

7)☒ Claim(s) *7,8,23 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Final office action

Response to the applicant's amendments

Claim objections

In view of the amendment filed on 06/29/05, the Examiner withdraws all objections to

the claims (1 and 9).

Claim Rejections – 35 USC § 112(2nd)

In view of the Amendment filed 06/29/05, the examiner withdraws the previous 35 USC

§ 112 rejections to claim 1.

Response to the applicant's argument

Applicant's arguments, with respect to the rejection(s) of claim(s) under 35 U.S.C 103(a)

over Jonsson (U.S. PN: 6,609,224) in view of Kato (U.S. PN: 5,844,918) have been fully

considered and but are not persuasive. Therefore, the first non-final rejection stands active.

Response to remark pages 10-15, filed 06/29/05, the applicant argues that the prior art

(Kato) does not teach the limitation of "transmitting with in said single data packet, said plurality

of independent data segments and said data integrity information calculated for each of said

plurality of independent data segments" and further the applicant argues that Kato does not teach

the data segments and the associated error detecting code are not transmitted within a single

packet as required by claim 1. Unlike the assumptions of the applicant, the examiner believes

FIGS. 5a-5d shows the operation of the hybrid FEC/ARQ communications system, wherein FIG.

5a shows basic transmission data, FIG. 5b shows division of the basic transmission data into data

packets; FIG. 5c shows addition of an error detecting code to each data segment; and FIG. 5d

shows creation of a data packet by addition of a packet header to each data segment complete

with the error detecting code. Furthermore, the examiner would like to point out that each of the

data packets (for example fig. 5d of Kato) comprising plurality independent data segments and

checksums (CRC) wherein the checksums are calculating the independent data segments.

Therefore, the applied references have been applied appropriately.

1.   Claims **1-15 and 17-24** are remained pending.

Claim Objections

2.   Claim 17 objected to because of the following informalities:

a) Please change the word "capable of" to "configured for" on line 5.

Claim Rejections - 35 USC § 112, 1st paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner
> and process of making and using it, in such full, clear, concise, and exact terms as to
> enable any person skilled in the ail to which it pertains, or with which it is most nearly
> connected, to make and use the same and shall set forth the best mode contemplated by
> the inventor of carrying out his invention.

3.   Claims 1, 9 and 17, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with

the written description requirement. The claim(s) contain subject matter which was not described in the

specification in such a way as to reasonably convoy to one skilled in the art that the inventor(s), at the

time application was filled, had possession of the claimed invention.

Nowhere in the specification does the applicant teach, "transmitting within the **single data**

packet" not it clear what the Applicant intends by the language. Hence the Applicant has introduced New

Matter, which was not described in the specification in such a way as to application was filed, had

possession of the claimed invention.

Claims 1, 9 and 17, introduces **new matter** not previously introduced.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section

102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to

which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

      1.   Determining the scope and contents of the prior art.
      2.   Ascertaining the differences between the prior art and the claims at issue.
      3.   Resolving the level of ordinary skill in the pertinent art.
      4.   Considering objective evidence present in the application indicating obviousness
           or nonobviousness.

4.   Claims **1-6, 9-15, 17, 18-22** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Jonsson (U.S. PN: 6,609,224) in view of Kato (U.S. PN: 5,844,918).

As per claims **1, 9 and 17,** Jonsson substantially teach or disclose in figure 1 disclose a

typical packet (10) conforming to the IP-based transport layer protocols, such as UDP (User Data

gram Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header

section (12) (including source port, destination port, length and checksum) and a payload section

(14) (see col. 1, lines 24-47). Further, Jonnson teach that checksums are used by the UDP and

RTP transport layer protocols to detect errors in a single data packet and such transport layer

checksums are calculated to provide coverage for the entire data packet (e.g., header and

payload), included in the transport layer header as one of the header fields (see in fig. 1 element

16) and calculation of the checksum is performed by adding together all the octets of data in the

packet to be transmitted (see col. 2, lines 48-60). Furthermore, Jonnson teach that the checksum

field occupies two octets in most cases and is used to verify the correctness of the transport layer

packet and IP version 4 (IPv4) provides an option to disable the checksum (see col. 3, lines 24-

30). Jonsson **does not explicitly** teach calculating data integrity (checksum function) for data

segments to be transmitted within the data packet. **However**, Kato in figure 5 teach a

segmentation circuit (14) divides a transmission data into a fixed length (see figure 5b), an error

detecting code addition circuit (16) added an error detecting code (CRC) to the thus-divided data

segments (see figure 5c), the header addition circuit (20) further appends a packet header to each

data segment complete with the CRC code, whereby a transmission data packet is generated (see

figure 5d and col. 5, lines 28-35). **Therefore,** it would have been obvious to a person having an

ordinary skill in the art at the time the invention was made to combine (incorporate) the

teachings of Jonsson with the method of adding error correction codes (checksum or CRC codes)

into independent segments as taught by Kato to provide a service option in which errors are

detected separately. **This modification** would have been obvious because a person having

ordinary skill in the art would have been motivated to do so because it would provide in

achieving a reduction in power and resource consumption.

As per claims **2, 3, 10, 11, 18 and 19,** Jonsson in view of Kato teach all the subject matter

claimed in claims 1, 9 and 17 including Jonnson teach that checksums are used by the UDP and

RTP transport layer protocols to detect errors in a single data packet and such transport layer

checksums are calculated to provide coverage for the entire data packet (e.g., header and

payload), included in the transport layer header as one of the header fields (see in fig. 1 element

16) and calculation of the checksum is performed by adding together all the octets of data in the

packet to be transmitted (see col. 2, lines 48-60).

As per claims **4, 12 and 20,** Jonsson in view of Kato teach all the subject matter claimed

in claims 1, 9 and 17, including Jonsson teach that a speech data is presently transported over

the Internet using IP-based transport layer protocols such as the (UDP) and (RTP) and wherein

a software converts speech into digital data which is then assembled into data packets suitable

for transport over the Internet using the IP-based transport layer protocols (see col. 1, lines 24-

32).

As per claims **5, 13, and 21,** Jonsson in view of Kato teach all the subject matter claimed

in claims 1 and 17 including Kato teach the digital transmission method defined as basic data is

a video (audio) signal, and the basic data is transmitted in accordance with a TDMA/TDD

method in the transmission step (see claim 4).

As per claims **6, 14 and 22,** Jonsson in view of Kato teach all the subject matter claimed

in claims 1, 9 and 17. Jonsson in view of Kato **do not explicitly** teach setting a checksum

packet to zero. **However,** Jonsson teach that one of the checksum field occupies two octets in

most cases and is used to verify the correctness of the transport layer packet and IP version 4

(IPv4) provides an option to disable the checksum (see col. 3, lines 24-30) which the system of

Jonnson basically teach the option of disabling the checksum or setting the function of

checksum to zero. **Therefore,** it would have been obvious to a person having an ordinary skill

in the art at the time the invention was made to disable or set a checksum to zero in order to

maximize the option of error detection process. **This modification** would have been obvious

because a person having ordinary skill in the art would have been motivated in order to

facilitate utilization of flexible and efficient error detecting/correcting operations.

As per claim **15,** Jonsson in view of Kato teach all the subject matter claimed in claims 1,

9 and 17 including Jonsson substantially teach or disclose in figure 1 disclose a typical packet

(10) conforming to the IP-based transport layer protocols, such as UDP (User Data gram

Protocol) and RTP (Real-time Transport Protocol) whereby the packet is made of a header

section (12) (including source port, destination port, length and checksum) and a payload

section (14) (see col. 1, lines 24-47). Jonsson in view of Kato teach all the subject matter

claimed in claims 1, 9 and 17. Jonsson in view of Kato **do not explicitly** teach setting a

checksum packet to zero. **However,** Jonsson teach that one of the checksum field occupies two

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skill in the art at the time the invention was made to disable or set a checksum to zero to

maximize the option of error detection process. **This modification** would have been obvious

because a person having ordinary skill in the art would have been motivated in order to

facilitate utilization of flexible and efficient error detecting/correcting operations.

Allowable subject matter

5.   Claim **7, 8, 23, 24** are objected to as being dependent upon a rejected base claim but

would be allowable if rewritten independent from including all of the limitation of the base claim

and any intervening claims.

The claimed invention comprises a method comprising receiving a data packet as a client

and determining whether any of the independent data segments are corrupt based on said data

integrity information and discarding any independent data segments which are corrupt **(as in**

claim 7) which the prior art do not teach or render obvious.

Claim **8,** which are directly or indirectly dependents of claim 7 are also objected.

The claimed invention comprises a method comprising receiving a data packet as a client

and determining whether any of the independent data segments are corrupt based on said data

integrity information and discarding any independent data segments which are corrupt **(as in**

claim 23) which the prior art do not teach or render obvious.

Claim 24, which are directly or indirectly dependents of claim 23 are also objected.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

7.   Any inquiry concerning this communication or earlier communication from the examiner

should be directed to Esaw Abraham whose telephone number is (703) 305-7743. The examiner

can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor,

Albert DeCady can be reached on (703) 305-9595. The fax phone numbers for the organization

where this application or proceeding is assigned are (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

Esaw Abraham

Art unit: 2133

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